

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2005/000445

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> G06K 19/00, H01L 27/04, H01L 21/768

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> G06K 19/00, H01L 27/04, H01L 27/12, H01L 21/768, H01L 29/78

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Japanese Utility Model Gazette 1922-1996, Japanese Publication of Unexamined Utility Model Applications 1971-2005, Japanese Registered Utility Model Gazette 1994-2005, Japanese Gazette Containing the Utility Model 1996-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	JP 2001-013874 A (MATSUSHITA ELECTRIC WORKS, Ltd.), 2001.01.19, paragraphs [0025] - [0029], Fig.4,5 (Family none)	1,2,4,5,14, 15 3,6-13
Y A	JP 2001-014442 A (MIYOTA Co., Ltd.) 2001.01.19, paragraphs [0011] - [0015], Fig.3-6 (Family none)	1,2,4,5,14, 15 3,6-13
Y A	JP 2000-020665 A (TOSHIBA CORPORATION), 2000.01.21, paragraphs [0021] - [0036], Fig.1-9 (Family none)	1,2,4,5,14, 15 3,6-13
Y A	US 2003/0030689 A1 (SEIKO EPSON CORPORATION), 2003.02.13, paragraphs [0040] - [0066], [0106] - [0114], [0150] - [0152], [0163] - [0165], Fig.1,2,8, 12A,12B & JP 2003-080694 A 2003.03.19, paragraphs [0027] - [0049], [0082] - [0089], [0125] - [0127], [0138] - [0140], Fig.1,2,8,12	4,5 3,6,7



Further documents are listed in the continuation of Box C.



See patent family annex.

\* Special categories of cited documents:

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"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

03.03.2005

Date of mailing of the international search report

22.3.2005

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	JP 2003-318133 A (SEIKO EPSON CORPORATION), 2003.11.07, paragraphs [0056] - [0070], [0085] - [0099], [0136] - [0147], Fig. 3, 8-11, 19, 20 (Family none)	4, 5 3, 6, 7
A	JP 2001-109866 A (HITACHI MAXELL, Ltd.), 2001.04.20, paragraphs [0007] - [0016], Fig. 1-6 (Family none)	1-15
A	JP 2003-331248 A (LINTEC CORPORATION), 2003.11.21, paragraphs [0005] - [0021], Fig. 1-4 & WO 2003/098545 A1	1-15
A	JP 2003-123047 A (SHARP CORPORATION), 2003.04.25, paragraphs [0030] - [0056], Fig. 2-6 (Family none)	3-7